



# Mounting Instructions

**Air Duct Sampling Unit BWP-143A-SS/AG  
For AutoGuard® Multicriteria Protectors**

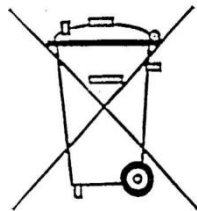


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# 1. Part Numbers

Part number	Description
116-BWP-143A-SS/AG	Air duct sampling unit

Autronica delivers the following pipe kits in different lengths:

Part number	Description
116-BJ-358/100	Pipekit L=100mm, Ø16x1,5mm
116-BJ-358/150	Pipekit L=150mm, Ø16x1,5mm
116-BJ-358/300	Pipekit L=300mm, Ø16x1,5mm
116-BJ-358/550	Pipekit L=550mm, Ø16x1,5mm
116-BJ-358/800	Pipekit L=800mm, Ø16x1,5mm
116-BJ-358/1000	Pipekit L=1000mm, Ø16x1,5mm
116-BJ-358/1500	Pipekit L=1500mm, Ø16x1,5mm

The length of the sampling tubes should be (approximately) between 2/3 and the full width of the duct.

When using sampling tubes above the length of 800mm, it should be considered whether mechanical support inside the duct is needed. Mechanical support should be done by the installer.

The BWP-143A-SS is delivered with 6 holes for glands or plugs Ø20 mm. Plastic plugs for transport is included.

Glands, plugs and locking nuts are NOT part of delivery and shall be specified separately. Here is a overview of some available fittings in Autronica's portfolio.

Part number	Description
116-6571-070.2020	CABLE GLAND A2LBFNP20M20 - (Ø20mm) - Nickel plated brass - IP66 and IP68 - Cable dia. min 9,4mm / max 14,0mm
116-6530-030.0020	SPMH/NP/M20 BLIND PLUG - (Ø20mm) - Nickel plated brass - IP66 and IP68
116-6531-006.0920	GLAND NUT M20X1.5 BRASS - (Ø20mm) - Nickel plated brass
116-6571-072.2020	CABLE GLAND M20 A2LDSSF/20 SS - (Ø20mm) - Stainless steel - IP66 and IP68 - Cable dia. min 9,4mm / max 14,0mm
116-6530-030.0120	BLIND PLUG M20 SPMH1SF/M20 - (Ø20mm) - Stainless steel - IP66 and IP68
116-6531-020.0020	GLAND NUT ACSLN/M20X1.5 SS - (Ø20mm) - Stainless steel

The type of glands and plugs must be according to local regulations and requirements.

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## 2. Overview

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The picture below shows the bottom of the box and the position of the glands for the pipes.

Bottom view:



Top view:

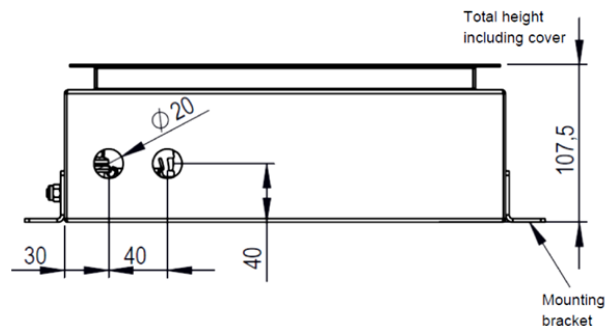


Mounting plate

NOTE: Do not unscrew or remove the mounting plate. The plate has been correctly positioned by the factory to precisely align the holes with the glands and pipes.

If the mounting plate is removed and replaced it may no longer be precisely aligned, and the pipes may be damaged.

Side view:



### 3. Air Sampling Tubes

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Intake pipe (longest with longest thread)



Outlet pipe (shortest with shortest thread)



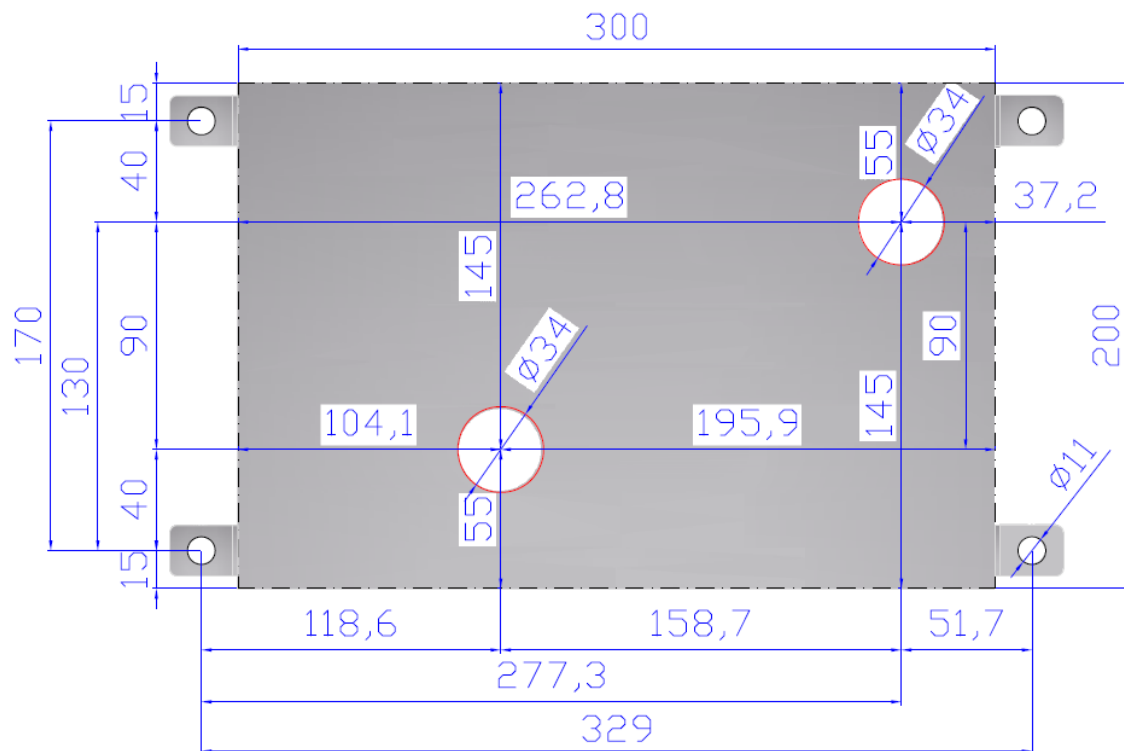
# 4. Mounting

## 4.1 Preparations

After the position and orientation of the air duct sampling unit is decided, it is ready to be installed.

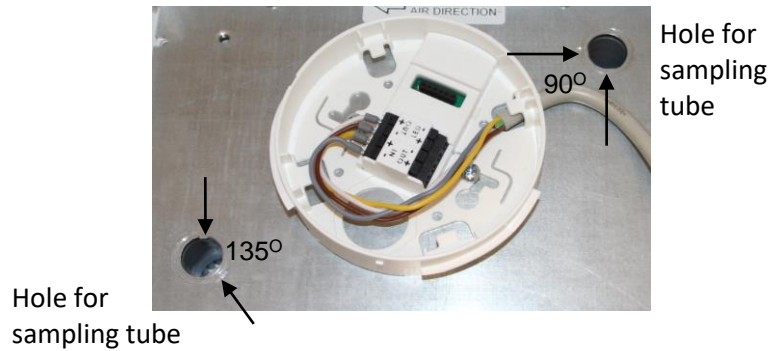
Drill the needed holes in the mounting position in the duct. Diameter of aperture for sampling tubes: 34mm.

See footprint:



## 4.2 Inserting the Pipes

- Unscrew and remove the cover from the box

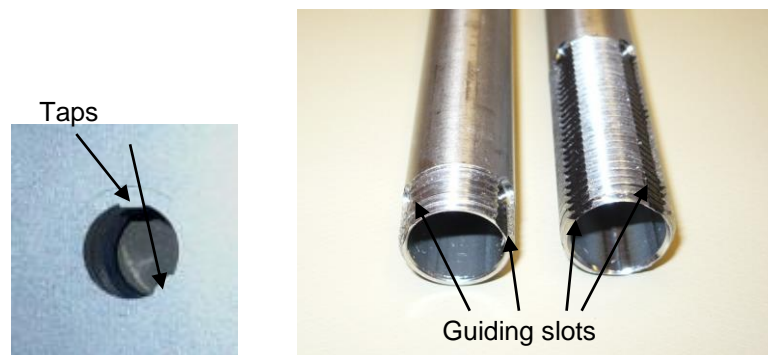


- Unscrew and remove the nuts (M16) on both pipes



### IMPORTANT

Note that the guiding slots on the threaded ends of the pipes match with the taps on the holes (both indicated by arrows on the drawing below). This ensures easy and correct fitment of the pipes.

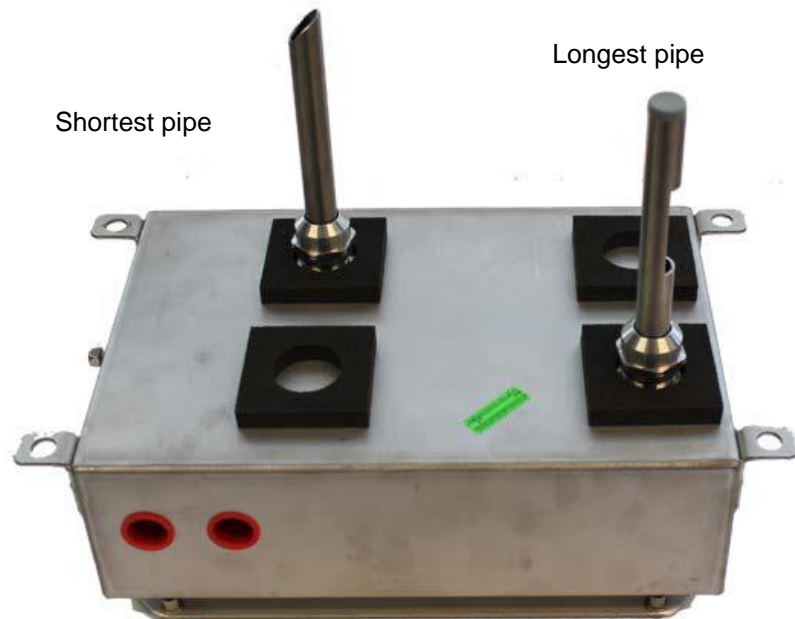


- At the bottom of the box, loosen the nuts on both glands

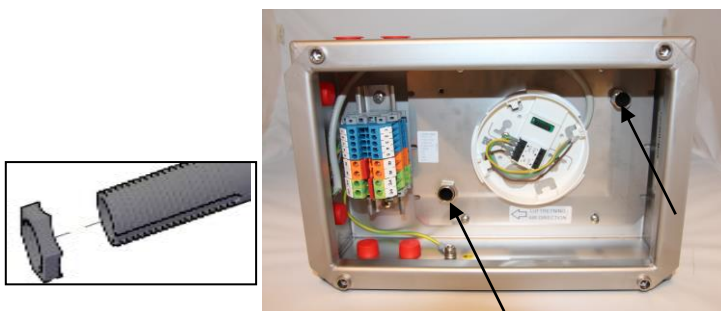




- Insert the longest pipe with the threaded end of the pipe pointing towards the box, through the gland into its position (see drawing below)
- Insert the shortest pipe with the threaded end of the pipe pointing towards the box, through the nipple into its position (see drawing below)
- Make sure that the pipes are fitted firmly and as far as possible against the mounting plate



- Turn the box around and make sure that each pipe is correctly and properly fitted
- Screw and fasten the nuts (M16) firmly onto each pipe with a 19 mm wrench
- Be sure to direct the edges on the back nut towards the mounting plate for locking



The picture above shows the pipes correctly inserted through the glands with the nuts fastened.

Turn the box around again, then screw and properly tighten the nuts on both glands (use a 30 mm wrench)



Place the duct adapter in position in the predrilled holes

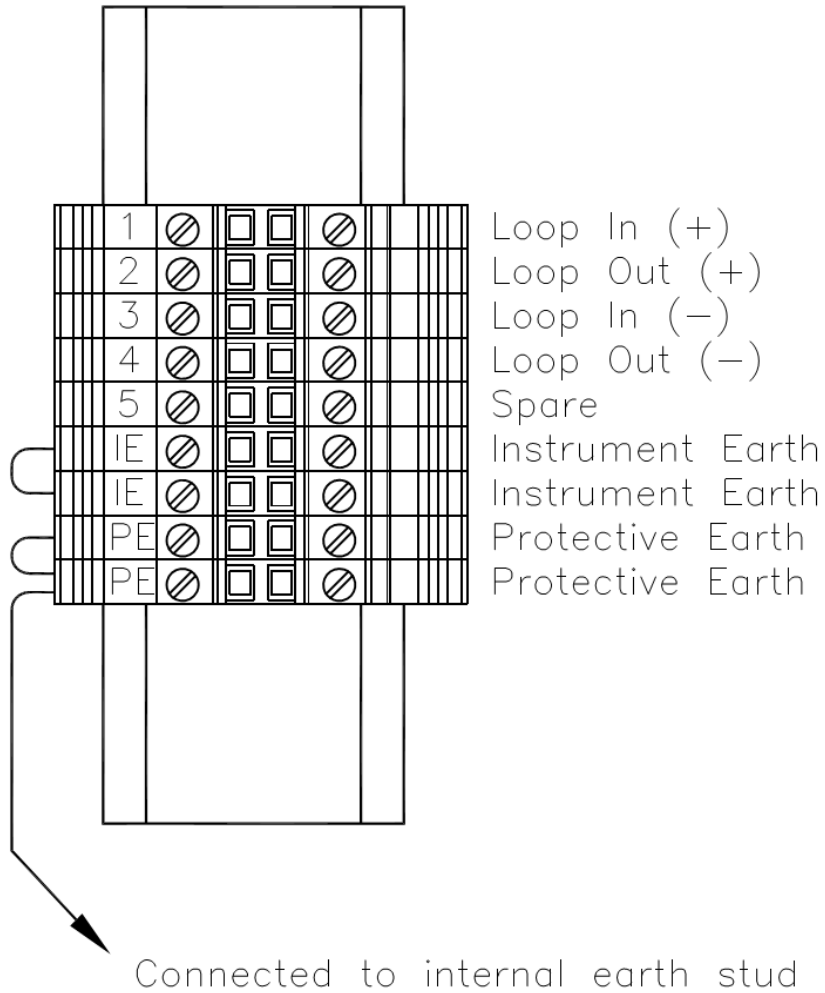
- Check the gaskets around the tubes
- Fasten the 4 mounting screws for the duct adapter. Torque: 1 Nm

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## 5. Connections

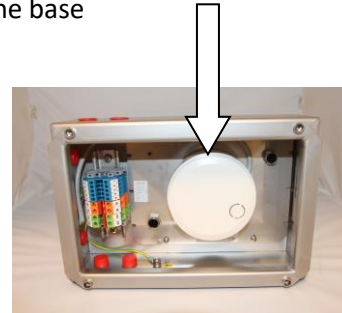
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## 6. Final Mounting

Make sure to remove the red protection cap from the protector head

- Mount the protector head onto the base



Consult the picture below. Note the location of the label on the transparent smoke chamber and the location of the small cable entry.

- Mount the chamber onto the protector (make sure that the cable runs into the small cable entry, and that the cover fits perfectly over the nuts of the sampling tubes)
- To ensure that the transparent smoke chamber is kept in its position (see picture), place the small bracket on top of it, and tighten the screw.

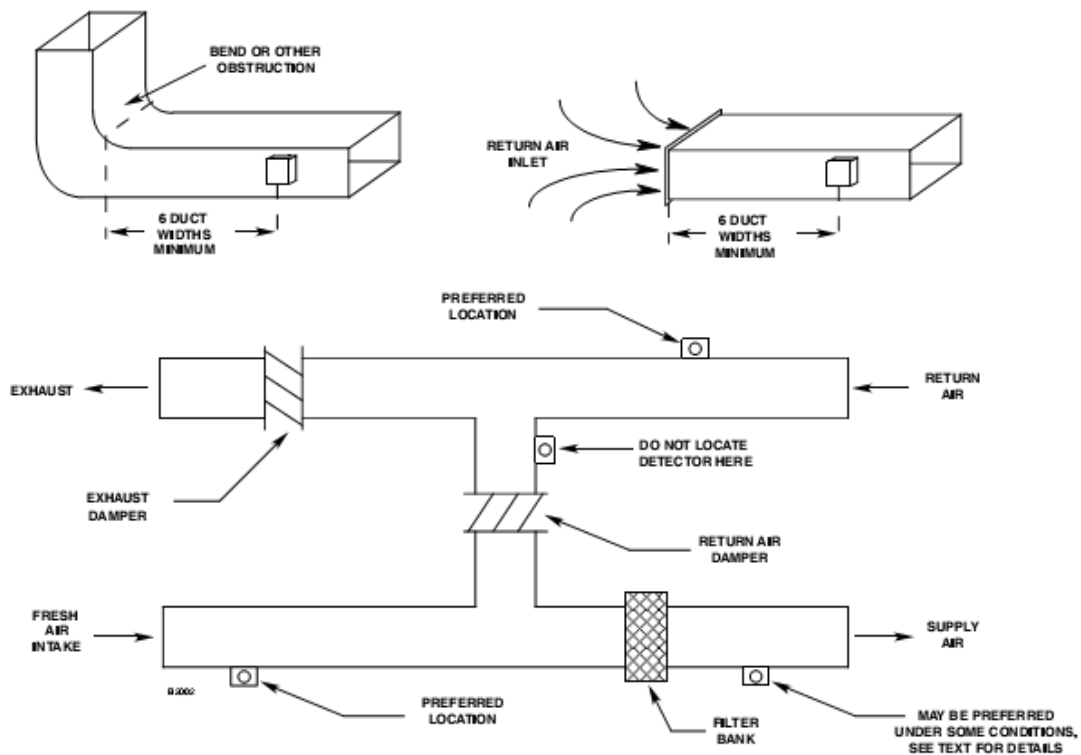


- Fasten the top cover onto the box again, then fasten the screws. Torque for the cover screws: 1Nm.
- When mounting the cover, ensure that there is no damages, especially inspect the gasket and cover of the unit.

## 7. Position of the air duct sampling unit

- Inside the air duct sampling unit, several stickers indicate the air direction in the duct. Make sure to orient the unit correct regarding the air direction in the duct.

Please take these rules of thumbs into consideration when positioning the unit in order to achieve the best possible performance:



## 8. Maintenance

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### 8.1 Preparations

The interval for inspections and actions is very dependent on the local environment, but as a rule of thumb, once every 12 month is recommended.

The enclosure is made of acid resistant stainless steel, and therefore not subject to corrosion. For cleaning, use soap and water only. Regarding maintenance of the protector inside the box, wipe down the outside of the protector with a dry, soft cloth. Do not clean the inside of the protector.

### 8.2 Recommended Actions 6-12 Months After Installation

The recommended actions to be executed depends on the environment - salt spray/humidity/vibration/etc.

#### 8.2.1 Visual Inspection

- Check for any signs of moisture intrusion. If any, the leak must be fixed.
- Check for any signs of corrosion. If any, replace the corroded part/unit.
- After opening the cover of the unit, always ensure that there is no damages to the gasket on the cover. If damaged, please replace the cover.

#### 8.2.1 Check and Re-tighten

- Check and re-tighten the glands and blind plugs.
- Check and re-tighten the screws on the internal terminal block for the cable connections.
- Re-tighten the four screws for the top cover. Torque for the cover screws: 1Nm
- Re-tighten the four mounting screws for the unit. Torque for the screws: 1Nm



